

Title (en)

MULTIVARIABLE FLUID FLOW MEASUREMENT DEVICE WITH FAST RESPONSE FLOW CALCULATION

Title (de)

MEHRGRÖSSEN PROZESSDURCHFLUSSMESSGERÄT MIT KURZER ANTWORTZEIT DER FLUSSBERECHNUNG

Title (fr)

DISPOSITIF DE MESURE DU DÉBIT DE FLUIDE MULTI-VARIABLE AVEC UN TEMPS DE RÉACTION RAPIDE POUR LE CALCUL DU DÉBIT

Publication

**EP 2347224 B1 20150701 (EN)**

Application

**EP 09748192 A 20091027**

Priority

- US 2009062177 W 20091027
- US 10862508 P 20081027

Abstract (en)

[origin: US2010106433A1] A process fluid flow device includes process communication circuitry, a processor, and measurement circuitry. The process communication circuitry is configured to communicate with at least one additional process device. The processor is coupled to the process communication circuitry and is configured to execute instructions to provide a plurality of cycles, wherein each cycle includes a number of flow-related calculations. Measurement circuitry is operably coupleable to a plurality of process variable sensors to obtain an indication of differential pressure during each cycle, and to obtain static pressure, and process fluid temperature. The processor is configured to compute a process fluid flow value using a current differential pressure sensor indication and at least one flow-related value calculated during a previous cycle. The process communication circuitry communicates the computed process fluid flow value to the at least one additional process device.

IPC 8 full level

**G01F 1/34** (2006.01); **G05D 7/06** (2006.01)

CPC (source: EP US)

**G01F 1/363** (2013.01 - EP US); **G01F 1/50** (2013.01 - EP US); **G01F 1/88** (2013.01 - EP US)

Citation (examination)

- US 6643610 B1 20031104 - KLEVEN LOWELL A [US], et al
- US 2007096244 A1 20070503 - ROTH JOERG [DE]

Cited by

US10704945B2; EP3325926A1

Designated contracting state (EPC)

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DOCDB simple family (publication)

**US 2010106433 A1 20100429**; **US 8655604 B2 20140218**; CN 102197288 A 20110921; CN 105068565 A 20151118; EP 2347224 A1 20110727; EP 2347224 B1 20150701; JP 2012507034 A 20120322; JP 5272079 B2 20130828; WO 2010062583 A1 20100603

DOCDB simple family (application)

**US 60626109 A 20091027**; CN 200980142721 A 20091027; CN 201510415319 A 20091027; EP 09748192 A 20091027; JP 2011534674 A 20091027; US 2009062177 W 20091027